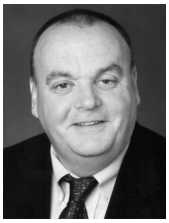

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Service-Based Transactions From CA-IDMS

Miami-Dade Smashes Government And Technology Stereotypes

This is the first document in the "Case Studies In Web Service-To-Host" series.

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EXECUTIVE SUMMARY

In just six months, Miami-Dade County (MDC) has simultaneously destroyed several stereotypes — that government is slow to adopt new technology; that legacy applications can't be exposed as multichannel services; and that CA-IDMS is dead technology that can't be modernized. MDC has exposed many of its custom-built, legacy applications to multichannel access by drawing more than 85 registered services from legacy CA-IDMS applications and exposing them as services. Public information, license renewal, police squad car information retrieval, real-estate tax payment, and building permit inspection services are just some of the applications where services not only sped up transaction delivery via new access channels, but also changed the fundamental business model of the users in the process. While some IT factions have used architectural purity as the reason to avoid introducing Web service-to-host tools, the business value they provide and the speed with which existing applications can be exposed as multichannel applications can no longer be ignored.

MDC HAS BROKEN THE STIGMAS

By exposing more than 85 legacy CA-IDMS transactions as services, MDC has overcome the stereotype that is often erroneously applied to government as being a technology laggard. Given this accomplishment, one could make the point that MDC is well ahead of the goals of many of its commercial peers. In just six months, MDC has successfully deployed more than 85 registered services from legacy transactions that were built on technology (CA-IDMS) that many had claimed could not be modernized.

MDC HAS A LEGACY OF VALUABLE, HIGH-PERFORMING CA-IDMS APPLICATIONS

MDC is typical of many IT organizations — with a bevy of high-performing applications that have served the needs of business people for many years, it faces growing dissatisfaction that the applications are not keeping up with advances in multichannel access. Many misinformed IT organizations would consider MDC's applications to be too old, written in technology that is too difficult to modernize. MDC has 65 enterprise applications comprising some 17 million lines of mainframe code that was written using the CA-IDMS database and ADSO. Redundant distributed applications — a testament to the "benefits" of client servers — are deployed in many locations across the county.

REPLACEMENT IS NOT AN OPTION

A common, albeit naive, answer to MDC's problem is to migrate to a new DBMS, shed the ADSO programming language, and migrate from COBOL to Java or some other modern language. However, the folks at MDC aren't naive enough to believe that replacement is a serious option for them. In the words of MDC CIO Judy Zito, "There are a lot of unique processes that have been coded into the mainframe over many years. Recoding logic that we could potentially be using over and over again just wasn't a prudent approach." Instead, MDC chose to extend existing application transactions to multichannel access using ServiceBuilder software from ClientSoft.[1] Even if migration is an option, why throw away years of investment in intellectual property when a much faster and cheaper solution exists?

MDC is just six months into the effort to draw reusable services from its legacy transactions. From its base of some 17 million lines of COBOL/CICS/IDMS code, MDC pegs its current reuse percentage at 20% and growing rapidly. MDC built new applications for its court (judiciary) group, a 311 public information service, occupational license renewals, building inspection and permitting, payment of real-estate taxes, and wireless access by police squad cars equipped with laptop computers.

ACCESS CHANNELS CHANGE BUSINESS MODELS

Some of the access channels that were enabled via services have fundamentally changed the business models. For example, prior to multichannel access, building inspectors were handed a paper list of assignments. Inspectors would work the list and note "pass/fail" for each inspection on the paper list. The paper lists were handed in to a key entry process, resulting in delays of weeks before the system reflected the results recorded by the inspectors. Service orientation exposed the inspection system to multichannel access, changing the following parts of the business model:

- **Bankers gain real-time, multichannel access to construction progress.** The building construction process is punctuated by periodic inspections that certify progress, safety, and adherence to local code enforcement. Bankers release funds as the project passes inspection. Multichannel access to the inspection process allows almost real-time information access, greatly speeding up the release of funding.

- **Real-time scheduling changes prevent wasted time on cancelled appointments.** Inspectors had previously adhered to schedules that were printed days in advance of inspection dates. Changes in scheduling could not be made during the day, resulting in missed appointments. With real-time schedule changes now sent to the inspectors' laptops, missed appointments are a thing of the past.

- **Taxpayers gain real-time scheduling convenience.** Taxpayers who scheduled appointments knew what day the inspector would arrive but not what time. Multichannel access allowed taxpayers to view the inspectors' schedules, determine what sequential position they were in, and set up just-in-time appointments. Finally, a clear case of government serving at the convenience of the taxpayer.

In addition, police squad car access to information frees staff to handle other calls and lessens radio traffic. Citizens seeking public information can access information via the Internet, rather than getting trapped in endless telephone transfer loops. Occupational licensees can renew their licenses (and pay faster) via online facilities. Property owners can pay real-estate taxes online, making the process easier, faster, and much more convenient and introducing the perception that tax dollars actually do translate into tangible taxpayer benefits. The changes that multichannel access brings to legacy application systems run far beyond simple technological change.

RECOMMENDATIONS

MODERNIZE LEGACY APPLICATIONS WITH SERVICES

MDC offers one example of a corporate IT organization that is brave enough to ignore conventional wisdom and is smart enough to realize that 25 years of unique application design and coding should not be discarded because of advances in technology.

- **Suspend doubts about Web service-to-host.** Clearly, Web service-to-host is a very viable means of extending existing legacy transactions to the service-oriented model. Multichannel access to legacy applications is not only possible, but it can also be done in a matter of months.
- **Don't assume that high-volume transactions require architectural changes.** MDC has a population of 2.3 million citizens who are potential users of these systems; wrapped legacy transactions can serve high numbers of users with convenience, speed, and ease of use.
- **Don't use Web service-to-host for very low-latency requirements.** The ease of use and speed-to-market provided by this software comes at a cost of multiple layers — most of the existing mainframe/3270 overhead, though voluminous, was refined over the years to be very fast. However, layering WSDL, SOAP, and other scripting languages for user interfaces will inevitably add some latency. Check your vendors' customer references before you buy to see if you can establish where the latency breaking point was.

ENDNOTES

[1] ServiceBuilder from ClientSoft and other Web service-to-host software wraps legacy transactions in WSDL and exposes them via a SOAP interface — putting a standards-based modern technology face on high-performing legacy transactions.